

Both hospital and outpatient products, as well as orphan drugs have been included in this analysis. All medicinal products have been assessed on the INN level, without differentiating original, innovative products from generics. In addition to general statistical analysis, the GDP adjusted comparison has also been performed. Subsequently we have also conducted more detailed analysis of the following ATC groups, known to be major health care cost drivers: C (cardiovascular), J (anti-infective), L (oncology), M (musculo-skeletal) and N (neurology, psychiatry). **RESULTS:** As expected, linear correlation between national GDP and number of reimbursed INNs have been observed. However, major differences in mentioned ATC groups have revealed the inconsistency of the current HTA activities across countries leading to sometimes unfair treatment possibilities for patients with different diseases which could have not been justified by unequal socio-economic characteristics of investigated countries. **CONCLUSIONS:** There is a strong need for the continuous education of national decision makers on the principles and processes of the HTA. New innovative ideas of financing the health care in developing countries are urgently needed in order to ensure ethical standards in health care and subsequent patient access to cost effective treatment, but at the same time to engage patients in investing in their personal health and wellbeing.

#### HEALTH CARE USE & POLICY STUDIES – Formulary Development

PHP36

##### HEALTH ECONOMICS DATA: USE AND PERCEIVED VALUE IN U.S. PAYERS' FORMULARY DECISIONS

Mullins CD<sup>1</sup>, Ratner J<sup>2</sup>, Ball D<sup>3</sup>

<sup>1</sup>University of Maryland, Baltimore, MD, USA, <sup>2</sup>Westat, Rockville, MD, USA, <sup>3</sup>Eli Lilly and Company, Indianapolis, IN, USA

**OBJECTIVES:** Since the 1990s, many articles have documented problems with US payers' utilization of pharmacoeconomic studies for decision-making. By replicating an in-depth survey methodology, this study aimed to determine the extent to which US practices had changed over the past decade. **METHODS:** Semi-structured exploratory interviews were conducted in 2007 to develop a survey instrument—fielded in 2007–08 with key formulary decision-makers at US insurers and US public payers in 9 pre-identified categories. The structured set of questions examined US health care payers' 1) use of, and attitudes and perceptions regarding, pharmacoeconomic information, and 2) opinions about how pharmaceutical manufacturers present pharmacoeconomic information. **RESULTS:** Compared to 10 years ago, U.S. payers regard pharmacoeconomic information much more favorably, despite variation in their use of and attitudes toward pharmacoeconomics. Payers cluster in three groups: a minority who use pharmacoeconomic information frequently and rigorously; a broader group who examine pharmacoeconomic information informally and do rigorous analysis occasionally; and a group who only review pharmacoeconomic information in broad terms along with other drug-related information. Across all categories, payers acknowledge that the quality of pharmacoeconomic studies has improved. Payers suggest that pharmacoeconomic studies often “answer the wrong questions”—e.g., by failing to identify the subset(s) of patients where the drug is most effective. Payers remain skeptical towards pharmacoeconomic information and studies provided/sponsored by industry—e.g., when they perceive companies present only favorable studies. Increasingly, payers separate clinical reviews from pharmacoeconomic evaluations; the latter may be integrated with rebating discussions. **CONCLUSIONS:** US payer attitudes about and use of pharmacoeconomic information have improved; however, formal, rigorous use of cost-effectiveness analysis is not the norm. Most payers foresee their organizations using pharmacoeconomic evaluation slightly more and would welcome a neutral entity that produced pharmacoeconomic evidence—although some question whether even government funding could insulate it from industry and political influence.

#### HEALTH CARE USE & POLICY STUDIES – Health Care Costs & Management

PHP37

##### SOCIAL HEALTH INSURANCE, PREVENTIVE CARE AND HEALTH CARE EXPENDITURE

Chen Q<sup>1</sup>, Li J<sup>2</sup>, Li L<sup>1</sup>

<sup>1</sup>Peking University, Beijing, China, <sup>2</sup>Peking University, Beijing, Beijing, China

**OBJECTIVES:** Social Health Insurance (SHI) and National Health Service (NHS) are two main choices for health reform. China's health reform during last decade is basically SHI-oriented, especially after the implementation of “Basic Health Insurance of Urban Workers” since 1998. Theoretically speaking, a NHS system will invest more on preventive care than an SHI system. This research investigates the effect of increasing health insurance coverage on health expenditure in China, especially through the specific channel of preventive care. **METHODS:** We estimates the health care expenditure function with province-level panel data from 1991–2007 of China. The key determinates we examined are social health insurance policy implication (the increasing coverage of health insurance) and the share of preventive care in health disbursement. Other determinants are those usually in literatures including GDP, doctor and beds supply, population, aging. The independent variables of interests are per capita health expenditure, hospitalization expenses, inspecting commission and medical expenses. A generalized difference-in-difference method is used to assess the effect of adoption of social health insurance. IV methods are used to control the possible endogeneity problems. **RESULTS:** The increasing coverage of health

insurance is expected to contribute to health care expenditure increasing. The more is the spending of preventive health care, the lower the health expenditure is. Moreover, we find social health insurance coverage has a crowding-out effect on preventive care expenditure. Other variables' effects are similar to the results from literatures. **CONCLUSIONS:** “Low accessibility and high costs in health care service” is key problem of China's health care system right now. The SHI oriented health reform is a driver of health care expenditure increasing. China has just stated of a new comprehensive health care system reform. The move to SHI may be politically correct, but is not the best option for China. It will lead to long-term and deep crisis in the health sector.

PHP38

##### HOSPITALIZATION COST OF PATIENTS ADMITTED TO THE TEACHING UNIVERSITY HOSPITAL OF LARISSA (TUHL) IN THE REGION OF THESSALY

Androutsou L<sup>1</sup>, Theodoratou D<sup>2</sup>, Geitona M<sup>2</sup>

<sup>1</sup>University of Thessaly, Athens, Greece, <sup>2</sup>University of Thessaly, Volos, Greece

**OBJECTIVES:** To estimate the hospitalisation cost of ICU patients admitted to the TUHL in the region of Thessaly, in Greece. **METHODS:** The ICU chosen is the only tertiary university ICU in the whole region of Thessaly accounting 27% of the total ICU beds. The study sample consisted of all patients (elective and emergency admissions) admitted to the respective TUHL in 2006. Clinical data were derived from patients' medical records on a retrospective basis whereas economic data were derived from the Hospital's Financial Department. The analysis included direct costs, using an up-down approach under NHS perspective. The nominal and actual hospitalization cost per ICU patient were based on the resource utilisation and the annual hospital balance sheets on NHS prices in Euros. **RESULTS:** 312 have been admitted to the ICU with a total direct cost of €4,799 million suffering from stroke, COPD, cancer, heart, trauma, pneumonia with a mean length of stay 8.87 days. The mean cost per hospitalisation day in the ICU was estimated at €1,734. Mean actual cost per patient is estimated at €15,382 whereas social insurance funds reimburse only €1,666. Personnel costs are the major cost component accounting for 31% of the total cost, while the pharmaceuticals account for 23%, laboratory 11%, supply and oxygen 17%, infrastructure-hotel services expenses 18%. **CONCLUSIONS:** This research results in some meaningful conclusions for effecting changes in hospital policies for better utilization of ICU resources, for optimizing patient care and incorporating economic assessment in decision-making.

PHP39

##### COST MEASURE IN PRIMARY CARE: RETROSPECTIVE BEHAVIOUR OF ACG CASE-MIX SYSTEM AT A SPANISH INTERREGIONAL LEVEL

Sicras-Mainar A<sup>1</sup>, Navarro-Artieda R<sup>2</sup>, Velasco-Velasco S<sup>1</sup>, Escribano-Herranz E<sup>3</sup>, Prados S<sup>4</sup>, Estelrich J<sup>5</sup>

<sup>1</sup>Badalona Serveis Assistencials SA, Barcelona, Spain, <sup>2</sup>Hospital Germans Trias y Pujol, Badalona, Barcelona, Spain, <sup>3</sup>Badalona Serveis Assistencials SA, Badalona, Barcelona, Spain,

<sup>4</sup>Instituto aragonés de ciencias de la Salud, Barcelona, Spain, <sup>5</sup>Badalona Serveis Assistencials, Barcelona, Spain

**OBJECTIVES:** The objective of the study is to obtain behaviour of the cost's relative average weights of the assistance with the retrospective application of the Adjusted Clinical Groups (ACG's) in 16 teams of Primary Care with an attended population in the clinical practice use. **METHODS:** Multicentre, retrospective study based on electronic records of patients seeking care during 2008 in the regions of Aragon, Balears and Catalonia. Main measurements: universal variables (age, sex, health service-family practice/paediatrics) and dependent variables: episodes and total cost (visits, diagnostic test, referrals, drugs). The ACG case-mix System software (version 7.1; N = 106) classified subjects into a single category for a given annual resource consumption. The model of cost per each patient was established differentiating the fix cost and the variable. Outlier patients were considered those surpassing  $T = Q3 + 1.5(Q3 - Q1) = €1,778.6$  for total cost expenditure. Log transformation of the dependent variable was carried out to reduce skewness of the distribution and make it close to normal. Explanatory power was calculated by coefficients of determination (R<sup>2</sup>). Statistical software: SPSS,  $p < 0.05$ . **RESULTS:** The total number of the studied patients was 227,235 (intensity of use: 75.6%), with an average  $4.5 \pm 3.2$  episodes. The age average was of  $44.1 \pm 23.7$  years, 56.6% women (13.5% paediatrics). The distribution of costs was €148,657,137. The total unitary cost per patient/year  $654.2 \pm 851.7€$  (relative weights of reference). Patient's case-mix: 57.2% of the study population was grouped into 10 ACG. The explanatory power of the ACG classification system was 36.3% (Ln: 41.2%),  $p < 0.001$ . 6.2% of patients were considered Outliers (N = 14,066). It details the form skewness and the average relative weights per each category of ACG's classification. **CONCLUSIONS:** The ACG are an acceptable system of classification of patients in situation of clinical practice use. Some ACG classification categories should be separated due to the high outliers number.

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##### THE CONCENTRATION OF PHARMACEUTICAL MARKET IN SOME MEDICINE GROUPS IN FINLAND

Heikkonen TT<sup>1</sup>, Tamminen N<sup>2</sup>

<sup>1</sup>University of Turku, Turku, Finland, <sup>2</sup>Pharma Industry Finland, Helsinki, Uusimaa, Finland

**OBJECTIVES:** To study how concentrated the Finnish pharmaceutical market is in certain medicine groups. During the last decade the Finnish authorities have implemented different acts to increase the competition in the pharmaceutical market.